

***FlyBy Math™* Alignment**
Mathematics Curriculum Standards
Content Standards

ALGEBRA**Standard I. Understand patterns, relations, and functions.**

Expectation B. Relate and compare different forms of representations for a relationship.

1. Use different forms of representing information (e.g., graphical, symbolic, tabular).	<i>FlyBy Math™</i> Activities --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.
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Expectation C. Identify functions as linear or nonlinear and contrast their properties from tables, graphs, or equations.

1. Examine tables and graphs to determine if there is a constant rate of change between the quantities.	<i>FlyBy Math™</i> Activities --Interpret the slope of a line in the context of a distance-rate-time problem.
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Standard II. Represent and analyze mathematical situations and structures using algebraic symbols.

Expectation B. Explore relationships between symbolic expressions and graphs of lines, paying particular attention to the meaning of intercept and slope.

1. Analyze quantitative changes by comparing and contrasting numerical patterns in tables with their respective graphs in the coordinate plane.	<i>FlyBy Math™</i> Activities --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates. --Interpret the slope of a line in the context of a distance-rate-time problem.
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Standard III. Use mathematical models to represent and understand quantitative relationships.

Expectation A. Model and solve contextualized problems using various representations, such as graphs, tables, and equations.

*1. Use graphs, tables, and equations to solve applied problems involving tips, discounts, sales tax, and simple interest.	<i>FlyBy Math™</i> Activities --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.
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GEOMETRY

Standard II. Specify locations and describe spatial relationships using coordinate geometry and other representational systems.

Expectation A. Use coordinate geometry to represent and examine the properties of geometric shapes.

1. Identify and graph ordered pairs in the four quadrants of a coordinate plane.	<i>FlyBy Math™</i> Activities --Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.
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MEASUREMENT

Standard II. Apply appropriate techniques, tools, and formulas to determine measurements.

Expectation F. Solve simple problems involving rates and derived measurements for such attributes as velocity and density.

1. Apply rates to solve problems in real-world situations.	<i>FlyBy Math™</i> Activities --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
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